

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An optical module comprising:

an optical subassembly including a semiconductor optical device therein, the optical subassembly having a co-axial shape;

a support including first and second leg portions and a bridge connecting the first and second leg portions, the first and second leg portions securing the optical subassembly therebetween by being in contact with the optical subassembly;

a housing including a base and a cover, the base having a bottom surface for providing the optical subassembly and the first and second leg portions of the support thereon; and

a thermal sheet provided between the cover and the ~~support~~ bridge,

wherein the support reduces a stress applied to the optical subassembly from the cover through the thermal sheet by ends of the respective leg portions thereof coming in contact to the bottom surface of the base and forms a thermal path from the optical subassembly to the cover.
2. (Cancelled)
3. (Cancelled)
4. (Previously Presented) The optical module according to claim 1, wherein the optical subassembly has a stem for mounting the semiconductor optical device thereon, and the support further includes a finger curved to be in contact with the stem.

5. (Original) The optical module according to claim 4, wherein the outer surface of the optical subassembly is spaced from the bridge.

6. (Original) The optical module according to claim 4, wherein the finger is in contact with the stem with a solder provided between the stem and the finger.

7. (Withdrawn) The optical module according to claim 4, wherein the support has another bridge for securing the finger with the first and second leg portions.

8. (Withdrawn) The optical module according to claim 7, wherein a level of the bridge relative to the bottom surface of the base is greater than a level of the other bridge relative to the bottom surface of the base.

9. (Withdrawn) The optical module according to claim 7, wherein the other bridge is spaced from the outer surface of the stem.

10. (Withdrawn) The optical module according to claim 7, wherein the support further includes first and second arms provided on sides of the first and second leg portions for connecting the other bridge to the first and second leg portions, the first and second arms being connected with each other by the other bridge.

11. (Withdrawn) The optical module according to claim 10, wherein the other bridge has an inner side facing to the bridge, the finger being provided on the inner side.

12. (Withdrawn) The optical module according to claim 11, further comprising a circuit board provided in the housing,

wherein the optical subassembly has a lead terminal, connected to the circuit board.

13. (New) An optical module comprising:

an optical subassembly including a semiconductor optical device therein, the optical subassembly having a cylindrical outer shape;

a support including first and second leg portions and a bridge connecting the first and second leg portions, the first and second leg portions securing the optical subassembly therebetween;

a housing including a base and a cover, the base having a bottom surface for mounting the optical subassembly thereon and coming in contact with tips of respective leg portions of the support; and

a thermal sheet provided between the cover and the bridge,

wherein the support reduces a stress applied to the optical subassembly from the cover through the thermal sheet and forms a thermal path from the optical subassembly to the cover.

14. (New) The optical module according to claim 13,

wherein thermal sheet is made of silicon gel containing at least one of metal pieces, metal powders, ceramic pieces, and ceramic powders.

15. (New) The optical module according to claim 14,

wherein the thermal sheet has a thermal conductivity of 2 W/m/K or more than 20 W/m/K or less.

16. (New) The optical module according to claim 14,
wherein the thermal sheet shore hardness of 15 or more and 50 or less.

17. (New) The optical module according to claim 13,
wherein respective leg portions include a finger curved so as to be in contact with a side
of the optical subassembly.

18. (New) The optical module according to claim 17,
wherein the finger is in contact with the stem with a solder.

19. (New) The optical module according to claim 13,
wherein the bridge is not in contact with the side of the optical subassembly.